

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Currently Amended)** A method for operating an end node in a communications system including at least one network node and said end node, the method comprising:

generating a list of network nodes identifying network nodes used in routing signals to or from said end node from Mobile IP signals directed to said end node or transmitted by said end node,, said Mobile IP signals including at least one of a Mobile IP agent solicitation message, a Mobile IP agent advertisement message, a Mobile IP registration message and a Mobile IP registration reply message;

receiving at the end node, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

determining, at the end node, using said generated list, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node.

2. **(Currently Amended)** The method of claim 1, wherein said determining if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node comprises:

comparing network node information included in the received fault signal to information in said generated list identifying at least one network node used in routing signals to or from said end node.

3. **(Previously Presented)** The method of claim 2, further comprising:

determining said fault response operation as a function of information stored in said end node, said stored information relating to a plurality of possible operations.

4. **(Currently Amended)** The method of claim 1, wherein said operating the end node to initiate a fault response operation comprises:

initiating said fault response operation as a function of fault response information stored in said end node, said stored fault response information relating to a plurality of possible operations;

wherein said initiating said fault response operation is also performed as a function of the second network node at which the fault occurred with said operation being elected from a plurality of possible operations based on both the type of fault and which one of a plurality of network nodes was the node at which the fault occurred.

5. (Previously Presented) The method of claim 3, wherein said stored information further comprises a list of network nodes used in the routing of signals to said end node.

6. (Canceled)

7. (Previously Presented) The method of claim 5, wherein said stored information further comprises information identifying a network node which is used by said end node as an access node through which said end node is coupled to other nodes in the communications network.

8. (Original) The method of claim 7, wherein the access node is a base station and wherein said end node is a mobile device that is coupled to said base station by a wireless communications link.

9. (Previously Presented) The method of claim 4, further comprising dynamically generating at least a portion of said stored information identifying network nodes used in routing of signals to or from said end node from information included in sign is sent to or from said end node.

10. (Previously Presented) The method of claim 9, wherein said dynamically generating at least a portion of said stored information identifying network nodes comprises:

operating the end node to monitor for non-fault related signals and to generate at least some of said stored information from the monitored non-fault related signals.

11. (Original) The method of claim 10, wherein said non-fault related signals include session signaling messages communicated to or from said end node.

12. (Original) The method of Claim 10, wherein said non-fault related signals are routing messages.

13. (Previously Presented) The method of claim 1, wherein said fault response operation comprises a Mobile IP registration operation.

14. (Previously Presented) The method of claim 1, wherein said fault response operation comprises an end node state update operation.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Previously Presented) The method of claim 1, wherein said fault response operation comprises accessing stored information, identifying a plurality of possible operations and selecting from the plurality of possible operations the operation to be performed based on both the type of fault and which one of a plurality of network nodes was the indicated network node at which the fault occurred.

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Previously Presented) The method of claim 25, wherein said stored information comprises information identifying a network node which is used by said end node as at least one of a Mobile IP home agent, a Session Initiation Protocol proxy server and a Session Initiation Protocol location registrar.

31. (Canceled)

32. (Canceled)

33. (Previously Presented) The method of claim 25, further comprising dynamically generating at least a portion of said stored information identifying network nodes used in routing signals to said end node from information included in signals sent to or from said end node.

34. (Canceled)

35. (Previously Presented) The method of claim 25, further comprising:  
operating said end node to monitor for fault signals at preselected time intervals  
but not between said preselected time intervals.

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. **(Currently Amended)** A mobile communications device, comprising:

means for storing a set of information indicating network nodes which are used in  
routing of signals either to said mobile communications device or from said mobile  
communications device to other network nodes;

means for receiving messages ~~from~~ via one or more network nodes including  
service interference notification messages indicating service interference at a network  
node;

means for generating at said mobile communications device, from Mobile IP  
signals directed to said mobile communications device or transmitted by said mobile  
communications device, a list of network nodes identifying network nodes used in  
routing signals to or from said mobile communications device, said Mobile IP signals  
including at least one of a Mobile IP agent solicitation message, a Mobile IP agent  
advertisement message, a Mobile IP registration message and a Mobile IP registration  
reply message;

means for processing received service interference notification messages, at said  
mobile communications device to determine, using said generated list, if service  
interference indicated by a ~~received~~ network service interference notification message  
received via the one or more network nodes indicates service interference at an other  
network node used in routing of signals either to said mobile communications device or  
from said mobile communications device, wherein the other network node is different  
than the one or more network nodes ~~to another network node~~; and

means for initiating a fault response operation.

40. (Previously Presented) The mobile communications device of claim 39, further  
comprising:

means for wireless transmission; and

wherein said means for receiving messages comprises a radio receiver circuit.

41. (Previously Presented) The mobile communications device of claim 40, further comprising:

means for controlling the mobile communications device to monitor for said service interference notification messages at preselected intervals but not between said preselected time intervals.

42. **(Currently Amended)** A mobile communications device comprising:

memory;

receiver circuitry for receiving messages from network nodes including service interference notification messages indicating service interference at a network node; and  
a processor module configured to:

generate a list of network nodes identifying network nodes used in routing signals to or from said mobile communications device, wherein said list comprises information identifying each network node which is used by said mobile communications device as at least one of a Mobile IP home agent, a Session Initiation Protocol proxy server and a Session Initiation Protocol location registrar;

store said list in said memory;

process, at said mobile communications device, received service interference notification messages to determine if service interference indicated by a ~~received~~ network service interference notification message received via one or more network nodes indicates service interference at an other network node used in routing of signals either to said communications device or from said communications device, wherein the other network node is different than the one or more network nodes ~~to another network node~~; and

initiate a fault response operation.

43. (Canceled)

44. (Previously Presented) The communications device of claim 42, wherein said processor module is further configured to generate the list to include fault response actions to be taken to respond to faults at network nodes used in routing of IP packets to said mobile node.

45. (Previously Presented) The communications device of claim 44, wherein one of said fault response actions is a Mobile IP registration operation.

46. **(Currently Amended)** A device operative in a communications system including at least one network node and an end node, the device comprising:

means for generating from Mobile IP signals directed to said end node or transmitted by said end node, a list of network nodes identifying network nodes used in routing signals to or from said end node, said Mobile IP signals including at least one of a Mobile IP agent solicitation message, a Mobile IP agent advertisement message, a Mobile IP registration message and a Mobile IP registration reply message;

means for receiving, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

means for determining, using said generated list, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

means for initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node.

47. (Previously Presented) The device of claim 46 further comprising:

means for comparing network node information included in the received fault signal to information in said generated list identifying at least one network node used in routing signals to or from said end node.

48. **(Currently Amended)** A non-transitory computer readable medium embodying machine executable instructions for controlling an end node in a communications system including at least one network node and said end node, the computer readable medium comprising computer readable instructions for:

generating from Mobile IP signals directed to said end node or transmitted by said end node, a list of network nodes identifying network nodes used in routing signals to or from said end node, said Mobile IP signals including at least one of a Mobile IP agent solicitation message, a Mobile IP agent advertisement message, a Mobile IP registration message and a Mobile IP registration reply message;

receiving, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

determining, at the end node, using said generated list, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node.

49. **(Currently Amended)** The non-transitory computer readable medium of claim 48 further comprising computer readable instructions for:

comparing network node information included in the received fault signal to information in said generated list identifying at least one network node used in routing signals to or from said end node.

50. **(Currently Amended)** A device operative in a communications system including at least one network node and an end node, the device comprising:

means for receiving, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

means for determining, at the end node, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

means for initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node;

wherein said means for determining if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing of signals to or from said end node comprises:

means for comparing network node information included in the received fault signal to stored information identifying at least one network node used in routing signals to or from said end node; and

means for determining said fault response operation as a function of fault response information stored in said end node prior to receiving the fault signal, said stored fault response information relating to a plurality of possible operations;

wherein said means for determining ~~said fault response operation~~ also operates as a function of the second network node at which the fault occurred with said operation being selected from a plurality of possible operations based on both the type of fault and which one of a plurality of network nodes was the node at which the fault occurred.

51. **(Currently Amended)** A non-transitory computer readable medium embodying machine executable instructions for controlling an end node in a communications system including at least one network node and said end node, the computer readable medium comprising computer readable instructions for:

receiving, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

determining, at the end node, using said generated list, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node;

wherein said determining if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing of signals to or from said end node comprises:

comparing network node information included in the received fault signal to stored information identifying at least one network node used in routing signals to or from said end node; and

determining said fault response operation as a function of fault response information stored in said end node prior to receiving the fault signal, said stored fault response information relating to a plurality of possible operations;

wherein said determining ~~said fault response operation~~ is also performed as a function of the second network node at which the fault occurred with said operation



being selected from a plurality of possible operations based on both the type of fault and which one of a plurality of network nodes was the node at which the fault occurred.

52. **(Currently Amended)** A mobile communications device, comprising:

memory including a set of stored information indicating network nodes which are used in routing of signals either to said mobile communications device or from said mobile communications device to other network nodes;

receiver circuitry for receiving messages ~~from~~ via one or more network nodes including service interference notification messages indicating service interference at a network node;

a list generation module for generating from Mobile IP signals directed to said mobile communications device or transmitted by said mobile communications device, a list of network nodes identifying network nodes used in routing signals to or from said mobile communications device, said Mobile IP signals including at least one of a Mobile IP agent solicitation message, a Mobile IP agent advertisement message, a Mobile IP registration message and a Mobile IP registration reply message; and

a processor for processing received service interference notification messages to determine, using said generated list, if service interference indicated by a ~~received~~ network service interference notification message receive via the one or more network nodes indicates service interference at an other network node used in routing of signals either to said mobile communications device or from said mobile communications device ~~to another network node~~, and for initiating a fault response operation.

53. **(Previously Presented)** The mobile communications device of claim 52, further comprising:

a wireless transmitter; and

wherein said receiver circuitry comprises a radio receiver circuit.

54. **(Currently Amended)** A device operative in a communications system including at least one network node and an end node, the device comprising:

means for generating from Mobile IP signals directed to said end node or transmitted by said end node, a list of network nodes identifying network nodes used in routing signals to or from said end node, said Mobile IP signals including at least one of a

Mobile IP agent solicitation message, a Mobile IP agent advertisement message, a Mobile IP registration message and a Mobile IP registration reply message;

means for receiving, via a first network node, a fault signal indicating a network node fault of a second network node that is different than the first network node;

means for determining, at the end node, using said generated list, if the ~~network node fault corresponds to~~ second network node is a network node that is used in routing signals to or from said end node; and

means for initiating a fault response operation if it is determined that the second network node ~~fault corresponds to a network node that~~ is used in routing of signals to or from said end node.

55. (Previously Presented) The device of Claim 54, wherein said means for determining if the network node fault corresponds to a network node that is used in routing signals to or from said end node comprises:

means for comparing network node information included in the received fault signal to information in said generated list identifying at least one network node used in routing signals to or from said end node.

56. (Previously Presented) The device of Claim 55, further comprising:

means for determining said fault response operation as a function of information stored in said end node, said stored information relating to a plurality of possible operations.

57. **(Currently Amended)** The device of Claim 54, wherein said means for operating the end node to initiate a fault response operation comprises:

means for initiating said fault response operation as a function of fault response information stored in said end node, said stored fault response information relating to a plurality of possible operations;

wherein said means for initiating said fault response operation also operates as a function of the second network node at which the fault occurred with said operation being elected from a plurality of possible operations based on both the type of fault and which one of a plurality of network nodes was the node at which the fault occurred.